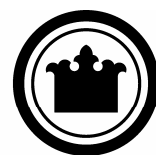


Burke Gilman Trail Redevelopment Project

**DRAFT Response to Huitt-Zollars  
Lake Forest Park  
BGT Standards Review**

July 14, 2006



**King County**

## Introduction

The following is a draft/initial response to the Burke-Gilman Trail Standards Review Summary and Suggested Conditions for a Conditional Use Permit, prepared by Huitt-Zollars for the City of Lake Forest Park City Council in April 2005.

## Section 1: Standards Review Summary

**H-Z Scope Item 1.** The use of standards for shared use paths in an urban area . . . appropriateness of bicycles as “critical” or “design” users

*Response:*

- 80% of current users are bicyclists; there is no viable on-street alternative route
- The BGT is part of a 27-mile regional trail system – connectivity between multiple jurisdictions and with other trails make it an ideal bicycle route for commuting and recreational purposes.
- New standards may or may not suggest separate facilities for fast bikes and pedestrians but existing prism is barely wide enough for minimal widening proposed.
- Revised AASHTO standards not due out until 2010 at the earliest; in meantime King Co. is committed to meeting current AASHTO standards.
- Trail widening will include two soft-surface shoulders to provide extra space and refuge for pedestrians.

**H-Z Scope Item 2.** Applicability of the standards used by King County to the section of the trail that traverses LFP.

*Response:*

- Very similar conditions exist through the NE Seattle segment of the BGT from Matthews Beach to Seattle/LFP city limits.
- Very similar conditions exist on other King County regional facilities, such as the newly completed East Lake Sammamish Trail.
- The *Idaho Bicycle and Pedestrian Transportation Plan* serves as only one reference. Other state plans in fact support the proposal.

**H-Z Scope Item 3.** Availability of options for increasing safety to the variety of uses along this trail.

*Response:*

- See “revised AAHTO standards” above.
- Implementation of potential guidelines or standards from these efforts is too early to suggest. The decision to move forward with the research and dedicate funding to study these issues hasn’t even been completed. (2010 earliest).

**H-Z Scope Item 4.** Use of speed limits for safety and design considerations.

*Response:*

- Increased safety is the primary goal of this project.

- Altering the design speed would only affect sight distance cones at intersections as horizontal curves are set by the existing railroad geometry. The 12 foot widened width of the trail is a given.
- Buffering vegetation and fences are important for maintaining privacy and character; only at crossings are these elements proposed to be removed or altered to improve sight distance.
- Current posted speed in some areas through LFP is already 10 mph. Current posted speed on other segments of the BGT is 15 mph.
- The observed 85<sup>th</sup>-percentile speed documented along this segment of trail is 17 MPH. Regardless of the posted speed, any reduction in trail design to a speed lower than this figure would conflict with any reasonable application of State or Federal standards and result in a significant safety issue and may open a liability issue for both King County and Lake Forest Park.
- It is an incorrect statement that “current practice is to establish a design speed based on the faster user”. Design speed is established such that 85% of all users (a majority) are considered.
- Posted speeds do not constitute a reduction in design standards.
- We agree that consistency along the trail is paramount to compliance and to avoid overly restrictive signage.
- The reference to the 5 MPH range of posted speed to within design speed is for vehicle flow at speeds and vehicle types that are very different that the users along the trail.
- The proposed design speed of 20 MPH is within the documented 85<sup>th</sup>-percentile speed found within this trail segment.

## Section 2: Suggested Conditions for Conditional Use Permit Ordinance

### *General Response:*

These are not goals, but design standards that have been identified in an attempt to meet certain goals. They in many ways conflict with standard transportation engineering principles and design as noted below.

### **1. GOAL:** Safe interface between path users and crossing traffic

**H-Z Suggestion:** Crossing motor vehicle traffic should have the ability to cross the trail through one or more of the following means, depending on intersection conditions:

- Yield signs on path at driveway crossings, whether combined or not with other measures – **Do not agree.**
- Advance warning signs on path – **Agree.**
- Vehicle actuated flashing yellow warning beacons – **Generally do not agree.**
- “Vehicle crossing ahead” on path and “trail crossing” on road signs – **Agree.**

- Colored concrete at intersection panel at path intersections and/or approaches – **Agree.**

*Rationale:* According to standard right-of-way of assignment, the higher volume leg of the intersection has the right-of-way priority. At every driveway and road crossing, trail user volume significantly exceeds motor vehicle volume. This practice is consistent with other segments of the Burke-Gilman Trail as well as with other King County regional trails. At some crossings, flashing yellow warning beacons may be worth further study depending on traffic volumes and certain design factors.

**H-Z Suggestion:** Provide Stop and Yield signs on low-volume roads (presumed to mean trail) where normal right-of-way rule might not be readily apparent or where sight distance is limited.

**Do not agree.**

*Rationale:* Even if trail geometry met the highest engineering standards, trail user behavior is well-established and is not easily changed. According to the Pedestrian and Bicycle Information Center ([www.pedbikeinfo.org](http://www.pedbikeinfo.org) and [www.bicycling.org](http://www.bicycling.org)):

- Trail users, especially bicyclists, have a low tolerance for delay
- Bicyclists have a strong desire to maintain momentum
- Younger trail users may not have experience dealing with traffic
- Trail users sometimes feel as though traffic regulations don't apply to them

These statements are confirmed by observed trail user behavior.

**H-Z Suggestion:** Provide signals adjacent to Bothell Way actuated by both path users and vehicular traffic (existing condition).

**Agree.**

**H-Z Suggestion:** Provide all-way stop at NE 165<sup>th</sup>, realign trail to be adjacent to Beach Drive.

**Do not agree.**

*Rationale:* Pending more current traffic counts for this intersection, the trail is considered to the higher volume road, warranting right-of-way. Additionally, the condition here of the path parallel to the frontage road is no different than other crossings along this segment of trail. Increasing sight lines will improve the operation of this crossing. AASHTO recommends against 4-way stops.

**H-Z Suggestion:** Identify crossing for bicyclists with “trail crossing ahead” and “caution trail crossing” signs, contrasting path warning surface approaches, traffic control measures (signing, striping, pavement marking, lighting).

**Agree with all suggested measures.**

**H-Z Suggestion:** Provide sight distance commensurate with *posted* path speed limit.

**Disagree.**

*Rationale:* Sight distance requirements should match *design* speed limit.

**2. GOAL:** Provide a screened interface with property adjacent to path through following actions: minimize width of disturbed areas, protect adjacent properties from drainage and landslide impacts, buffer adjacent property with landscaping and solid fences, minimize the removal/adjustment of existing fences, and shield lighting.

**Generally agree.**

*Rationale:* Efforts will be made to minimize all impacts, including widening, drainage, removal or alteration of buffers, fencing, and lighting to adjacent property owners, except:

- where the establishment of sight distance cones requires the removal of these elements
- where avoidance or minimization of certain impacts is financially unreasonable.

**3. GOAL:** Provide a safe interface between different types of path users.

**H-Z Suggestion:** Employ new trail forecasting methods, provide safe comfortable facility for all trail users.

**Generally agree.**

*Rationale:* Widening the paved surface will accommodate a wider range of users, and the establishment of soft-surface shoulders will provide additional space and a refuge from faster trail users. Additional user forecasts do not seem necessary.

**H-Z Suggestion:** Consider a lower design speed.

**Disagree.**

*Rationale:* The only real effect would be to reduce sight distances cones, potentially making the trail less safe for all.

**H-Z Suggestion:** Consider a reasonable posted speed limit.

**Agree.**

*Rationale:* We are proposing a posted speed limit of 10 mph through LFP, which is lower than elsewhere on the trail, but merited by congestion.

**H-Z Suggestion:** Provide non-obtrusive speed control measures

**Agree.**

**4. GOAL:** Provide notification of different trail conditions and use regulations in Lake Forest Park.

**H-Z Suggestion:** Provide strong visual indication to entrance into LFP: entry arch, entry plaza/pocket parks.

**Generally agree.**

Entry arches are not consistent with other jurisdictional changes along the Burke-Gilman Trail and may affect access and clearances, but small parks at north and south entry points would be entirely appropriate and feasible.

**H-Z Suggestion:** Notification at north and south entry points of special use conditions; provide traffic control signs at key entry points, proper sign size and mounting height.

**Generally agree.**

As HZ report states earlier, “. . . overly restrictive signs should be avoided to maintain credibility of all signs along the path.” By the same token, the number of signs and content of other signs should be thoughtfully considered so that they don’t become visual clutter that trail users disregard or ignore. All signs will meet MUTCD standards.

**H-Z Suggestion:** Provide location for radar speed signs.

**Disagree.**

*Rationale:* Per King County’s response and discussion among CAG, radar may or may not be an effective method for speed control. This tool may be part of upcoming “behavior modification” and enforcement discussions.

**5. GOAL:** Establish responsibility for maintenance and enforcement.

**Subject to further discussion.**